



## MARYLAND Department of Health

### **Public Health Preparedness and Situational Awareness Report: #2018:51**

Reporting for the week ending 12/22/18 (MMWR Week #51)

**December 28, 2018**

#### **CURRENT HOMELAND SECURITY THREAT LEVELS**

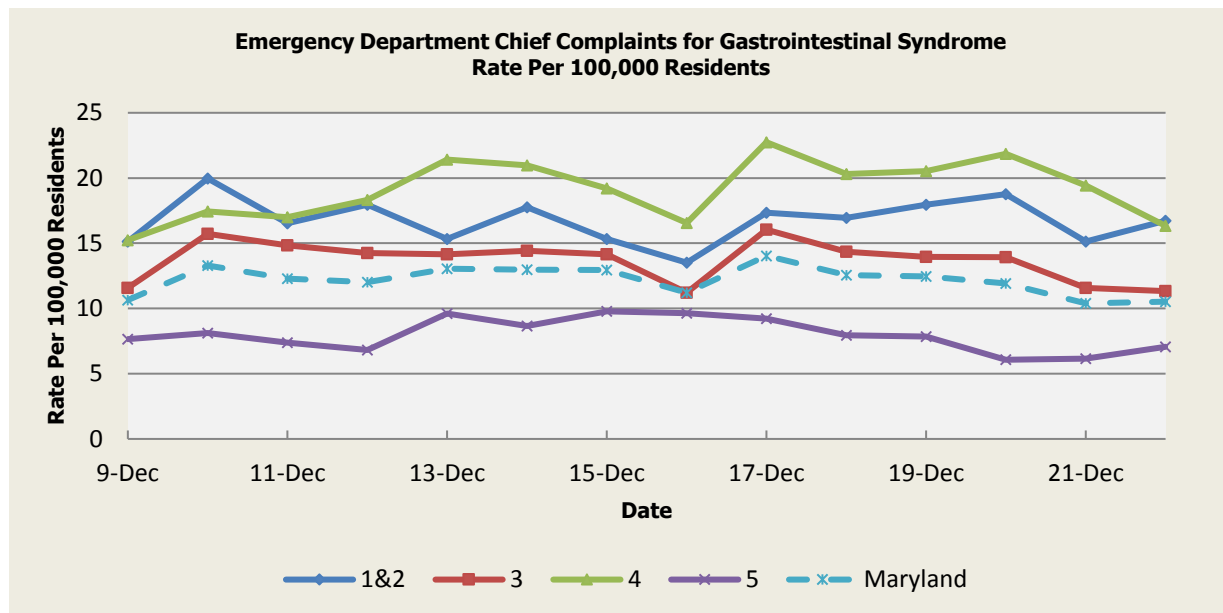
<b>National:</b>	<b>No Active Alerts</b>
<b>Maryland:</b>	<b>Normal (MEMA status)</b>

### **SYNDROMIC SURVEILLANCE REPORTS**

**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):** Graphical representation is provided for all syndromes (excluding the “Other” category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census. Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Baltimore, MD: Maryland Department of Health; 2018.

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## Gastrointestinal Syndrome



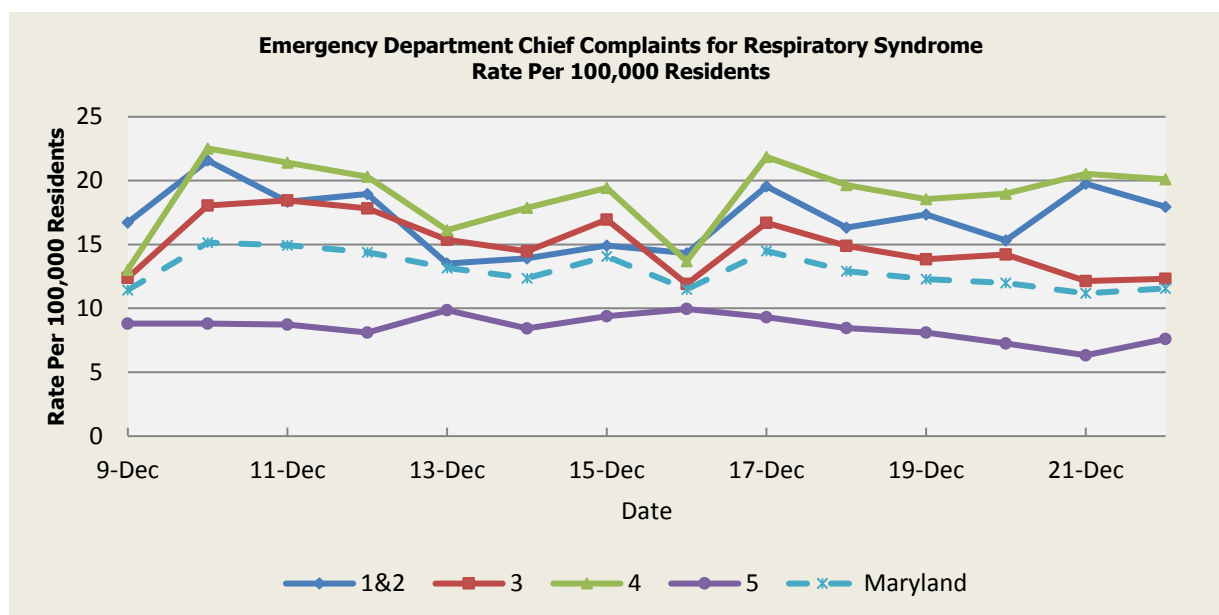
There were five (5) Gastrointestinal Syndrome outbreaks reported this week: three (3) outbreaks of Gastroenteritis in Nursing Homes (Regions 1&2,4,5); one (1) outbreak of Gastroenteritis associated with a Religious Facility (Region 3); one (1) outbreak of Gastroenteritis associated with a School (Region 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	13.06	15.03	15.73	10.15	13.05
Median Rate*	12.91	14.80	15.24	10.04	12.92

\* Per 100,000 Residents

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## Respiratory Syndrome



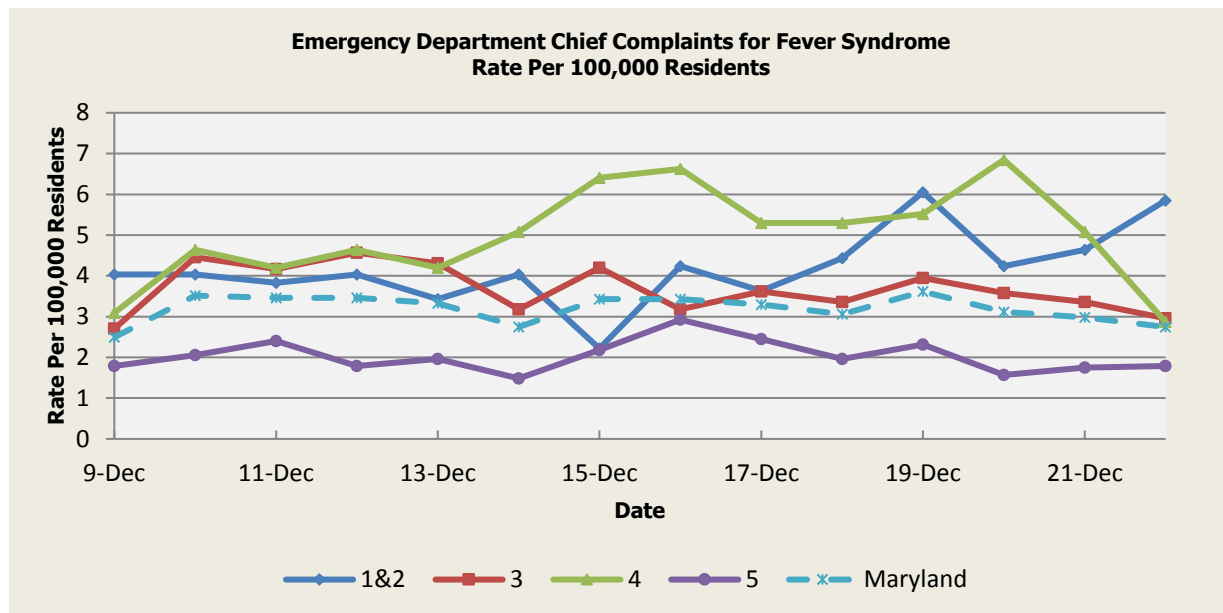
There were two (2) Respiratory Syndrome outbreaks reported this week: one (1) outbreak of Influenza in a Hospital (Region 4); one (1) of ILI associated with a Daycare Center (Regions 1&2).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.44	14.59	14.83	9.89	12.63
Median Rate*	11.90	14.03	14.13	9.52	12.15

\* Per 100,000 Residents

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## Fever Syndrome



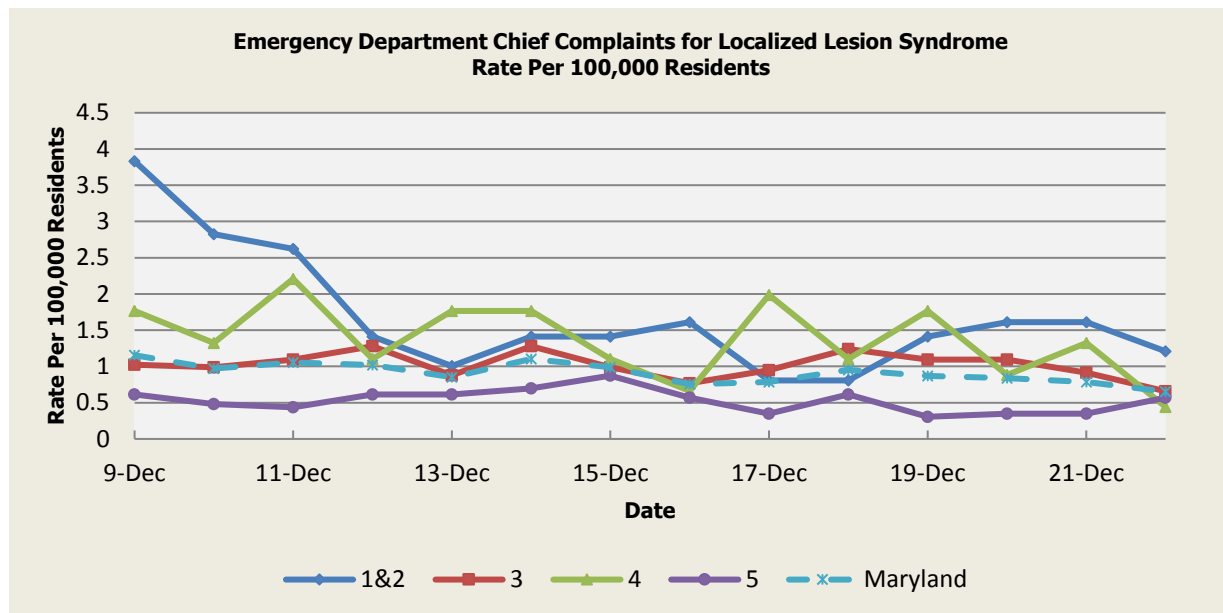
There were no Fever Syndrome outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.01	3.87	4.03	3.02	3.48
Median Rate*	2.82	3.73	3.75	2.92	3.36

*\*Per 100,000 Residents*

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## Localized Lesion Syndrome



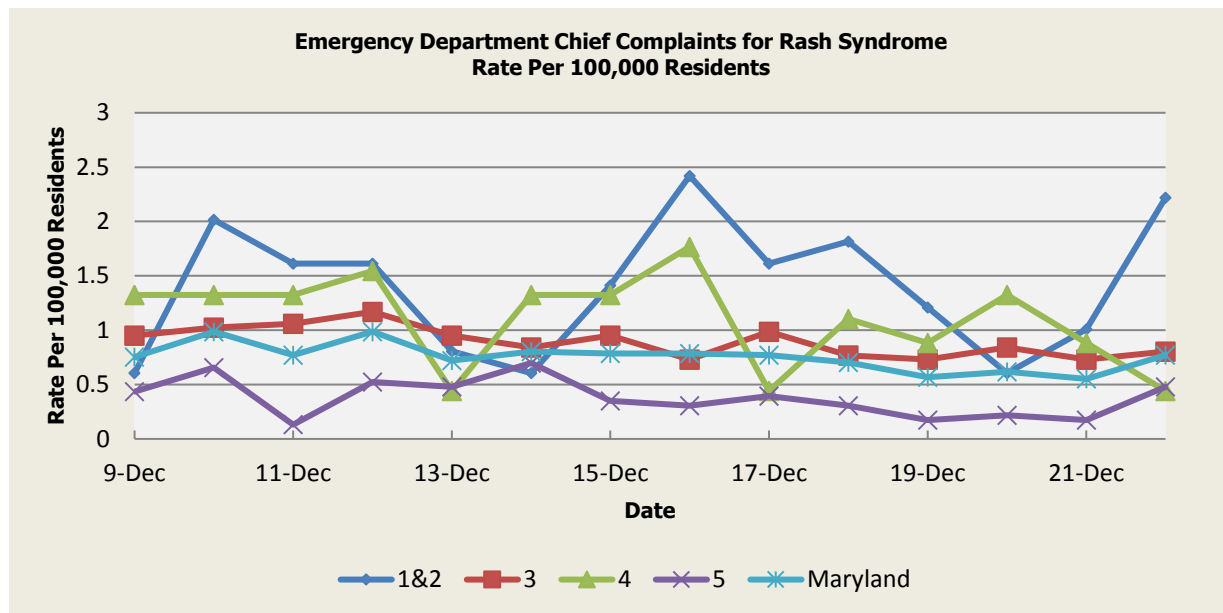
There were no Localized Lesion Syndrome outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.08	1.82	2.05	0.92	1.43
Median Rate*	1.01	1.75	1.99	0.87	1.37

\* Per 100,000 Residents

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## Rash Syndrome



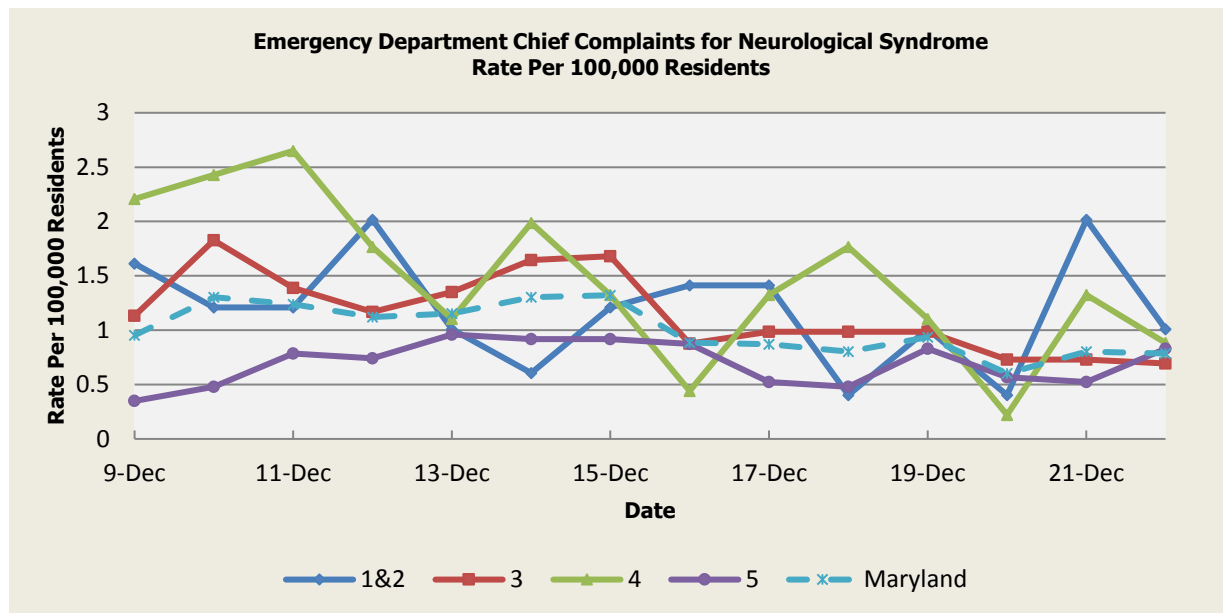
There were no Rash Syndrome outbreaks reported this week.

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.22	1.70	1.78	0.99	1.39
Median Rate*	1.21	1.61	1.77	0.96	1.34

\* Per 100,000 Residents

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## Neurological Syndrome



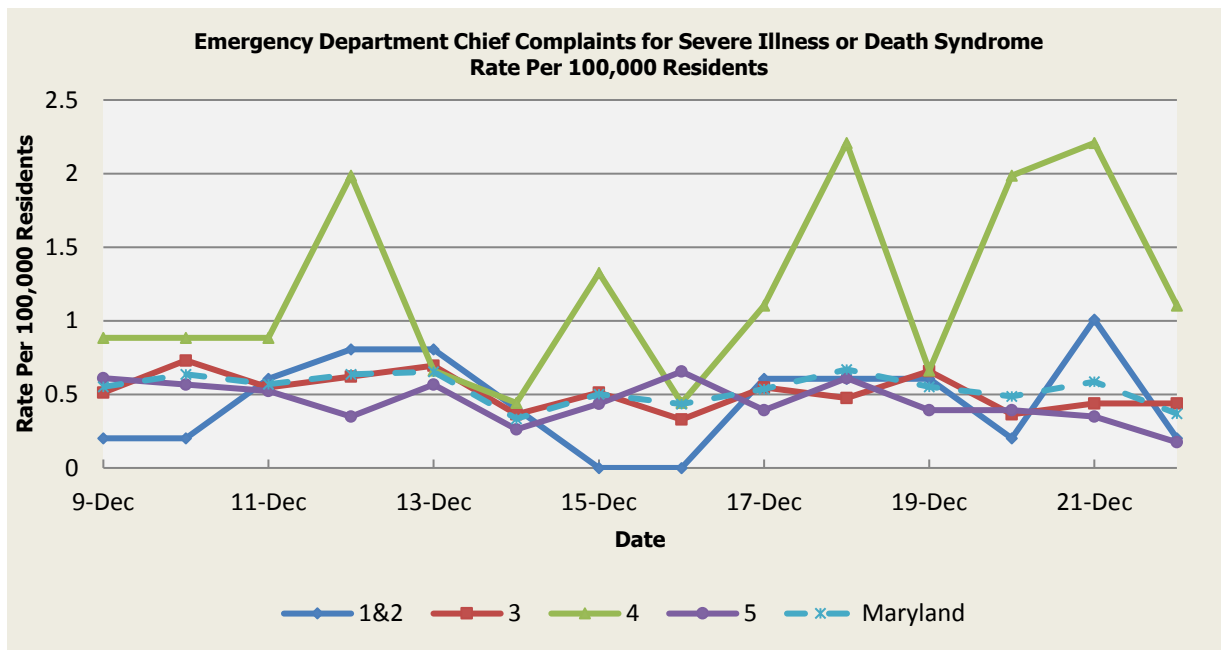
There were no Neurological Syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.74	0.91	0.82	0.57	0.76
Median Rate*	0.60	0.80	0.66	0.52	0.67

\* Per 100,000 Residents

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## Severe Illness or Death Syndrome



There were no Severe Illness or Death Syndrome outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.66	0.91	0.83	0.50	0.72
Median Rate*	0.60	0.88	0.66	0.48	0.69

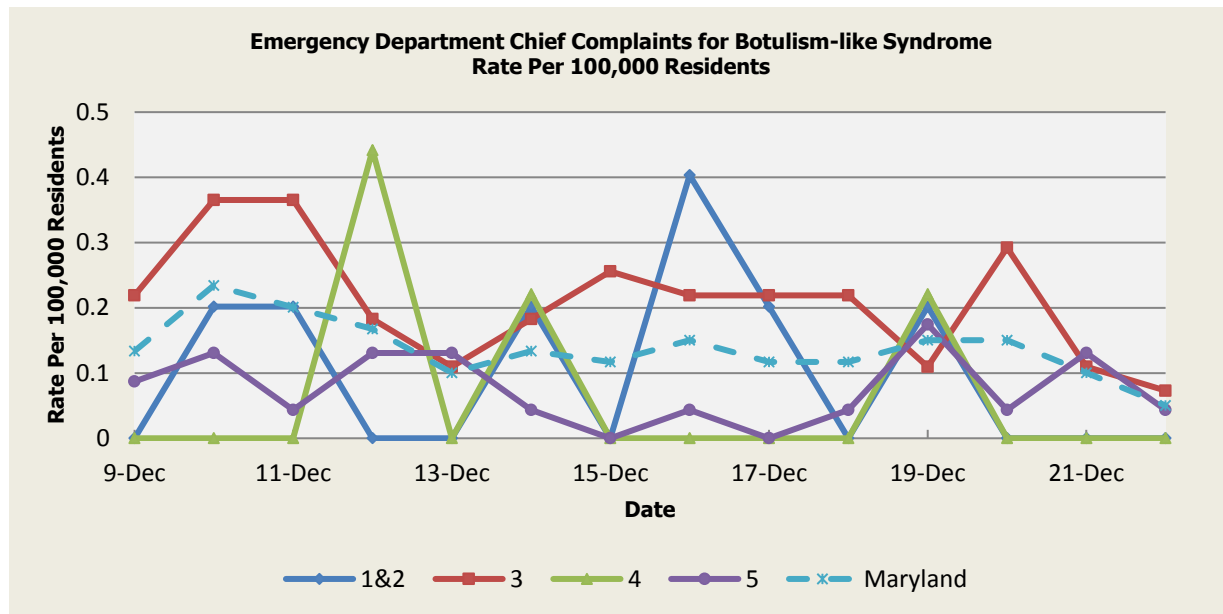
\* Per 100,000 Residents

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## **SYNDROMES RELATED TO CATEGORY A AGENTS**

### **Botulism-like Syndrome**



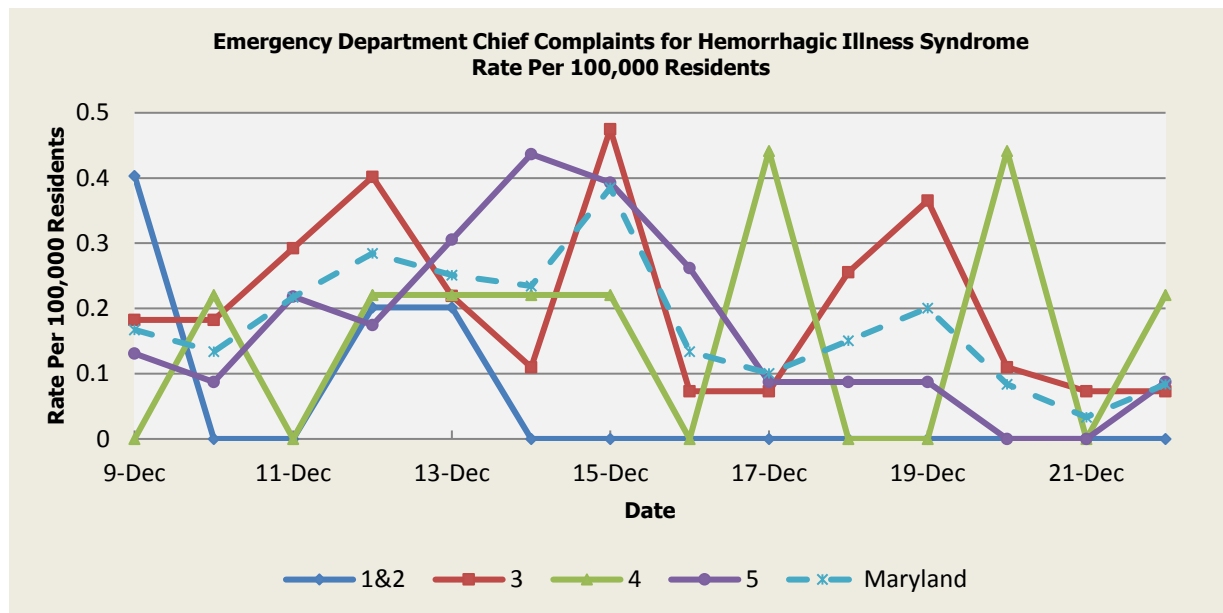
There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 12/10 (Regions 1&2,3), 12/11 (Regions 1&2,3), 12/12 (Region 4), 12/14 (Region 4), 12/15 (Region 3), 12/16 (Regions 1&2), 12/17 (Regions 1&2), 12/19 (Regions 1&2,4,5), 12/20 (Region 3). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	0.07	0.11	0.05	0.07	0.09
Mean Rate*	0.07	0.11	0.05	0.07	0.09
Median Rate*	0.00	0.07	0.00	0.04	0.07

\* Per 100,000 Residents

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## Hemorrhagic Illness Syndrome



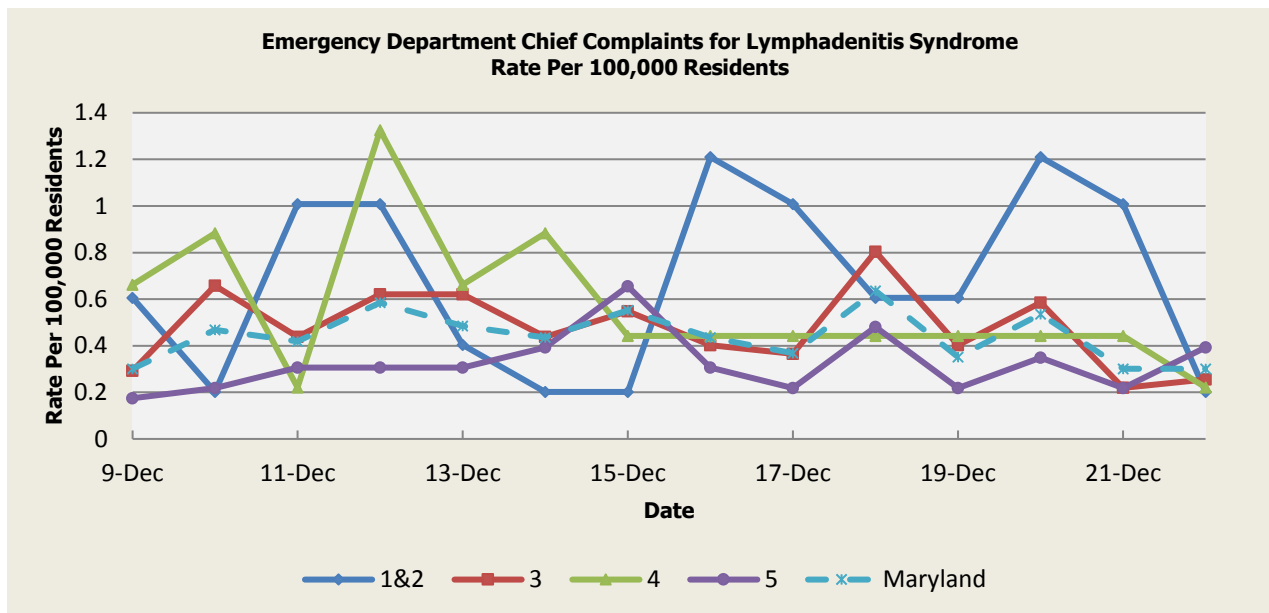
There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 12/9 (Regions 1&2), 12/10 (Region 4), 12/12 (Regions 1&2,3,4), 12/13 (Regions 1&2,4,5), 12/14 (Regions 4,5), 12/15 (Regions 3,4,5), 12/16 (Region 5), 12/17 (Region 4), 12/19 (Region 3), 12/22 (Region 4). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.15	0.03	0.11	0.12
Median Rate*	0.00	0.07	0.00	0.04	0.07

\* Per 100,000 Residents

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## Lymphadenitis Syndrome



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 12/10 (Region 4), 12/11 (Regions 1&2), 12/12 (Regions 1&2,4), 12/14 (Region 4), 12/16 (Regions 1&2), 12/17 (Regions 1&2), 12/20 (Regions 1&2), 12/21 (Regions 1&2). These increases are not known to be associated with any outbreaks.

Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.34	0.57	0.39	0.36	0.46
Median Rate*	0.20	0.47	0.44	0.31	0.38

\* Per 100,000 Residents

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## **MARYLAND REPORTABLE DISEASE SURVEILLANCE**

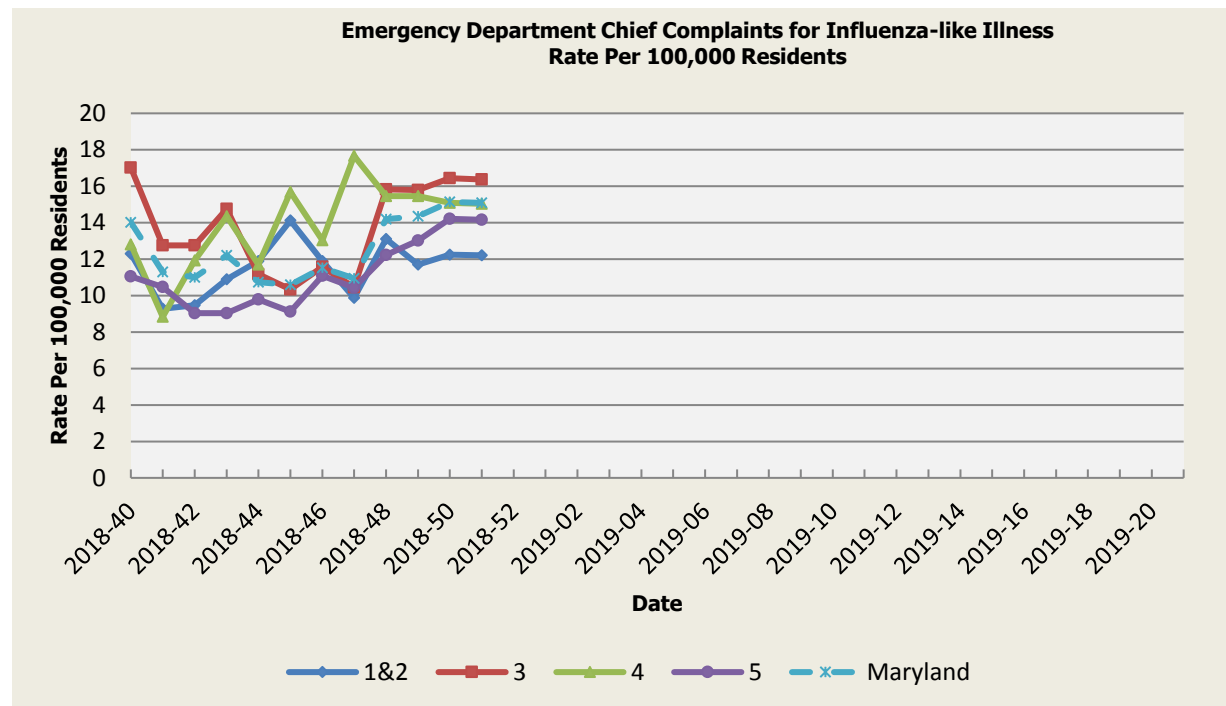
Reportable disease data from the National Electronic Disease Surveillance System (NEDSS) that feeds into ESSENCE is currently being validated. We will include these data in future reports once the validation process is complete.

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## **SYNDROMIC INFLUENZA SURVEILLANCE**

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October 2018 through May 2019). Seasonal Influenza activity for Week 51 was: Local Geographic Spread with Minimal Intensity.

### **Influenza-like Illness**

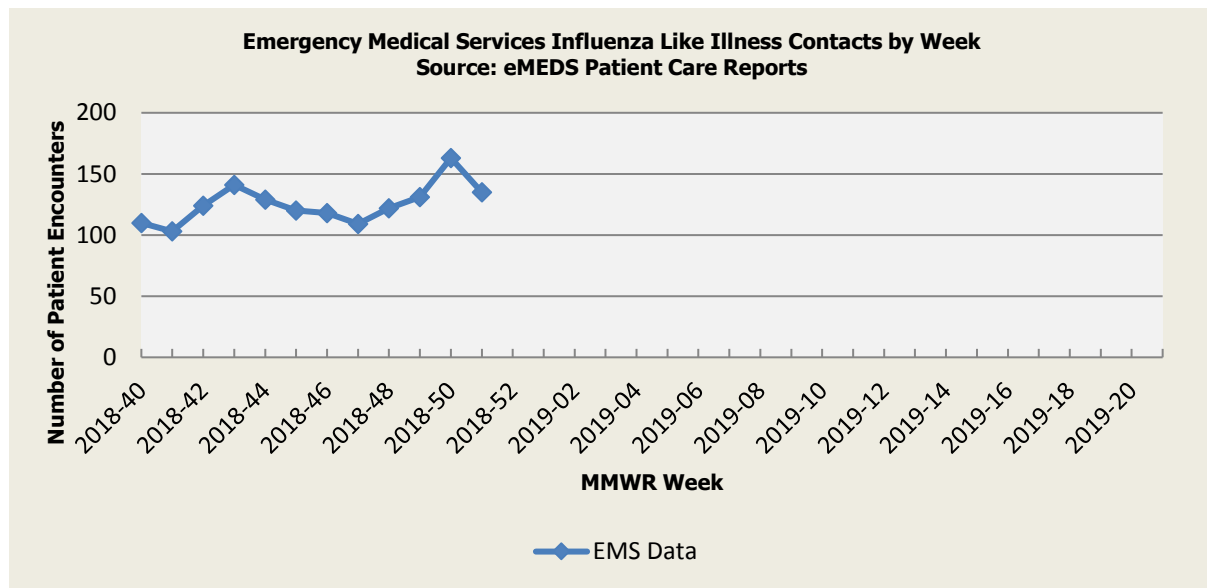


Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.25	16.43	15.08	14.21	15.13
Median Rate*	7.66	9.65	9.05	8.45	8.99

\* Per 100,000 Residents

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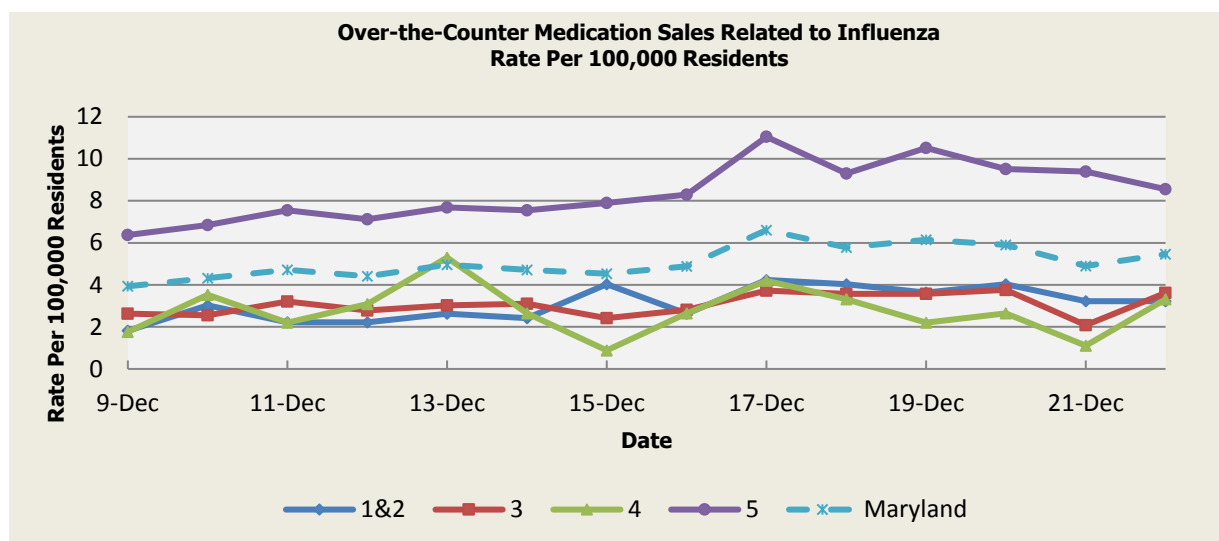
## Influenza-like Illness Contacts by Week



**Disclaimer on eMEDS flu related data:** These data are based on EMS Pre-hospital care reports where the EMS provider has selected “flu like illness” as a primary or secondary impression of a patient’s illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. These data are reported for trending purposes only.

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## Over-the-Counter Influenza-Related Medication Sales



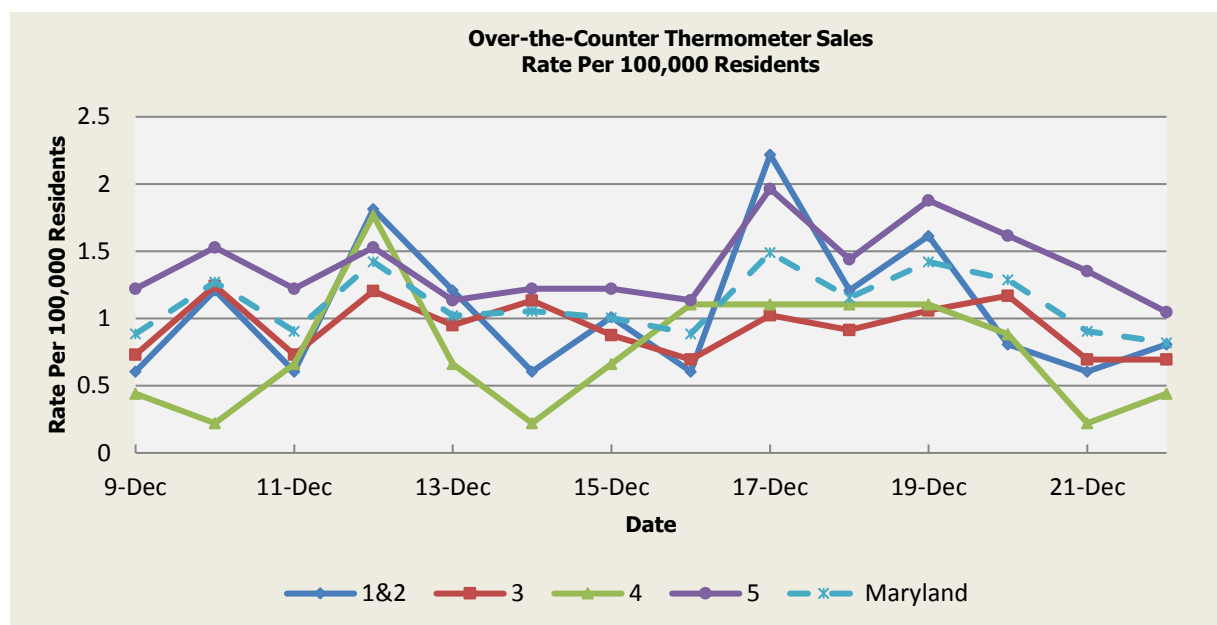
There was not an appreciable increase above baseline in the rate of OTC thermometer sales during this reporting period.

OTC Medication Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.62	4.69	2.74	8.11	5.76
Median Rate*	2.92	3.95	2.43	7.47	5.10

\* Per 100,000 Residents

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## Over-the-Counter Thermometer Sales



There was not an appreciable increase above baseline in the rate of OTC thermometer sales during this reporting period.

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.14	3.00	2.37	3.98	3.34
Median Rate*	2.82	2.81	2.21	3.80	3.18

\* Per 100,000 Residents

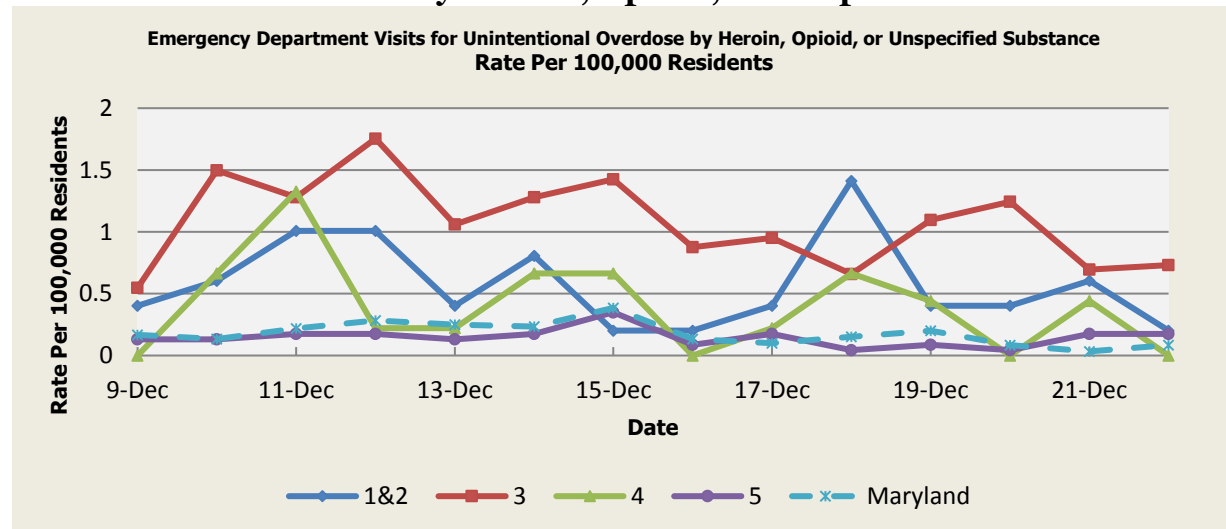
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## **SYNDROMIC OVERDOSE SURVEILLANCE**

The purpose of this section is to characterize non-fatal ED visit trends for acute unintentional overdose by Heroin, Opioid or Unspecified substance among Maryland residents captured by ESSENCE data, including chief complaint and discharge diagnosis. ED visits that are identified as unintentional overdose by Heroin, Opioid or Unspecified substance include those with medical and non-medical use of a prescription Opioid or where the substance is not specified, given evidence that most fatal overdoses are Opioid-related.

### **Unintentional Overdose by Heroin, Opioid, or Unspecified Substance**



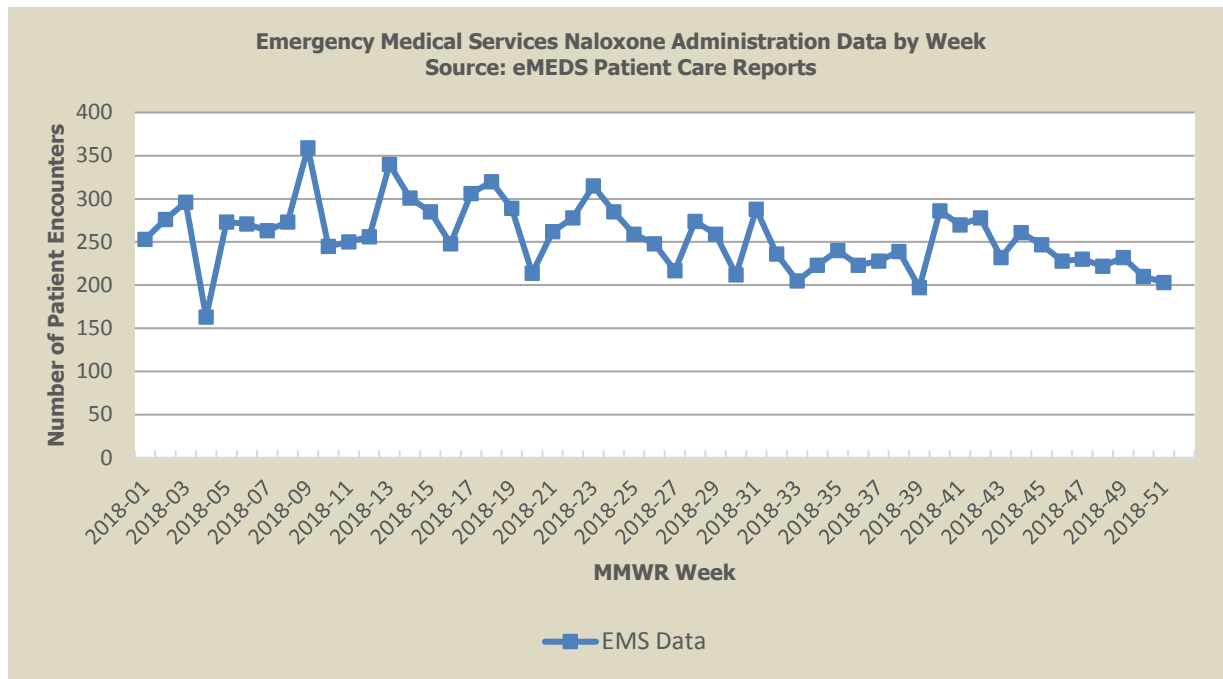
**Disclaimer on ESSENCE Overdose related data:** ESSENCE chief complaint and discharge diagnosis query for overdose-related illness includes but is not limited to the following terms: heroin, opioid, speedball, dope, fentanyl, naloxone, narcain, and overdose.

Non-fatal Overdose ED Visit Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.28	0.36	0.32	0.13	0.26
Median Rate*	1.01	1.32	1.10	0.48	0.99

\* Per 100,000 Residents

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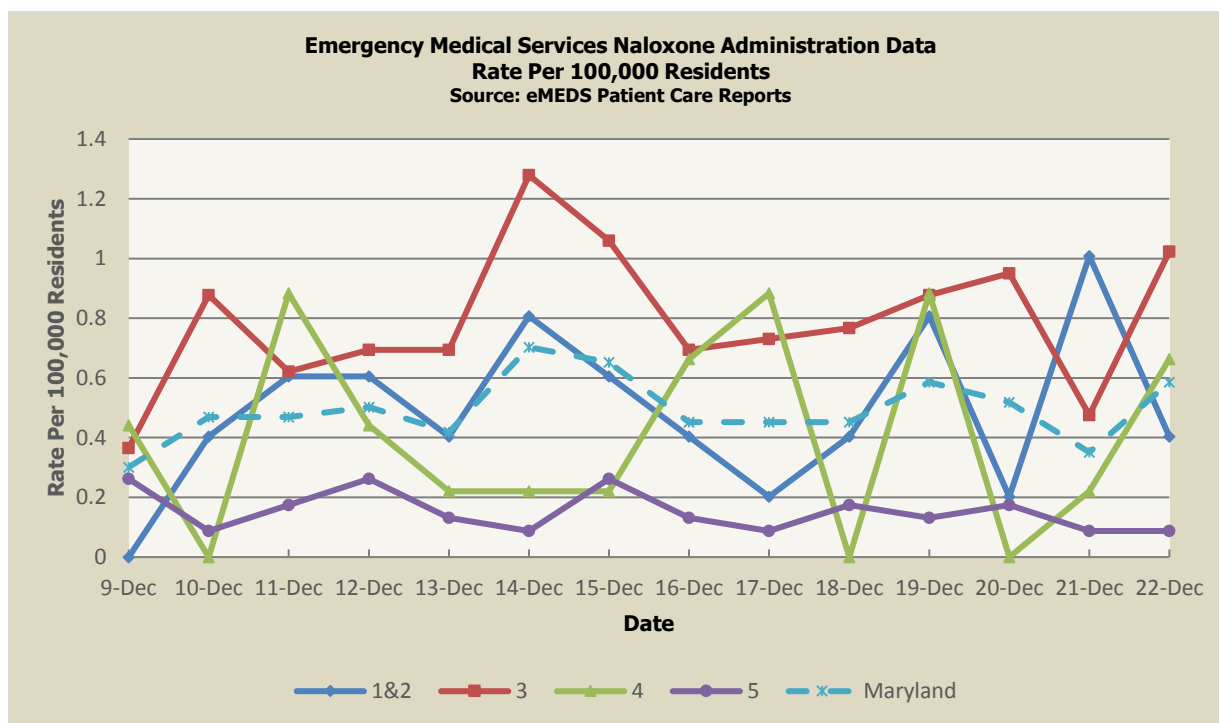
## Naloxone Administration Data by Week



**Disclaimer on eMEDS naloxone administration related data:** These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

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## Naloxone Administration Data



**Disclaimer on eMEDS Naloxone administration related data:** These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

EMS Naloxone Administration Data Baseline Data January 1, 2017 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.28	0.36	0.32	0.13	0.26
Median Rate*	1.01	1.32	1.10	0.48	0.99

\* Per 100,000 Residents

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## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. Presently, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

**Alert phase:** This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national, and global levels are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of December 27, 2018, the WHO-confirmed global total (2003-2018) of human cases of H5N1 avian influenza virus infection stands at 860, of which 454 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

## **AVIAN INFLUENZA**

*There were no relevant avian influenza reports this week.*

## **HUMAN AVIAN INFLUENZA**

**AVIAN INFLUENZA H9N2 (CHINA),** 26 Dec 2018, On 20 Dec 2018, the World Health Organization officially notified 2 cases of human infection of avian influenza A(H9N2) in China, retrospectively confirmed. The 1st case is a 10-month-old girl from Yunfu, Guangdong province, whose disease started on 16 Oct 2018. The case was benign. She had a history of contact with live poultry. The 2nd case is a 3-year-old boy from Guilin, Guangxi-Zhuang autonomous region province, who contracted the disease on 10 Oct 2018. The patient did not have contact with live poultry. These are the 5th and 6th human cases of avian influenza A (H9N2) virus notified by China in 2018. Read More: <http://www.promedmail.org/post/6223398>

## **NATIONAL DISEASE REPORTS**

**BRUCELLOSIS (PENNSYLVANIA),** 27 Dec 2018, Officials with Pennsylvania's Department of Agriculture are asking consumers to discard certain dairy products purchased from a farm in Lancaster county. Unpasteurized cow's milk or dairy products from Miller's Biodiversity Farm in Lancaster county should immediately be discarded, according to a news release from the agency.

The warning comes after officials in New York warned Pennsylvania's Department of Agriculture (PDA) that raw milk products purchased at the farm may contain a strain of *Brucella abortus* bacteria. "PDA has issued an order of quarantine to halt the sale of dairy products made from raw cow's milk from the farm while an investigation is conducted," according to the release. "Pasteurized dairy products from Miller's Biodiversity Farm have been deemed safe." Officials note that pasteurized milk sold elsewhere in the state is safe to consume. One person in New York has been diagnosed with *B. abortus* after confirmation by the Centers for Disease Control. Read More: <http://www.promedmail.org/post/6223249>

**INFLUENZA (Multi-state)**, 23 Dec 2018, The US Centers for Disease Control and Prevention (CDC) said national levels of influenza-like illness (ILI) are on the rise, signaling the start of the 2018-19 flu season. For the previous 3 weeks, ILI rates had been near or at the national baseline, which is 2.2% at this time of year. This week, the rate jumped to 2.7%. During last year's severe flu season [2017-18], ILI rates reached 7.5% before flu activity peaked, the highest it has been since the 2009-10 flu pandemic. Read More: <http://www.promedmail.org/post/6219731>

## **INTERNATIONAL DISEASE REPORTS**

**TRYPANOSOMIASIS (SOUTH AFRICA)**, 24 Dec 2018, East African trypanosomiasis [EAT] has been confirmed in 2 patients admitted to a Johannesburg Hospital over the past week. Both presented with acute febrile illness, and progression of illness to multi-system involvement prompted medical evacuation. Both patients required admission to a critical care unit for supportive care and suramin therapy. Read More: <http://www.promedmail.org/post/6221997>

**HANTAVIRUS (ARGENTINA)**, 23 Dec 2018, A 75-year-old man became the 4th victim of [a] hantavirus in a locality in the Epuyen mountains. The cause of death was confirmed by the provincial Ministry of Health. The virus, which infects rodents, took the lives of a 14-year-old adolescent, a 38-year-old woman and a 61-year-old municipal employee. Due to these cases, the province declared a health alert in the entire zone although this was discarded as an epidemic. Read More: <http://www.promedmail.org/post/6220634>

**YELLOW FEVER (SOUTH SUDAN)**, 23 Dec 2018, The yellow fever outbreak in South Sudan was declared on 29 Nov 2018 in Sakure payam, Nzara county, Gbudwe state. Since the reporting of the outbreak, the Ministry of Health and partners have scaled up preparedness and response activities to mitigate and control possible spread. These activities entailed conducting follow up epidemiological; entomological; and laboratory investigations in addition to providing supportive clinical care to symptomatic cases by national rapid response team. Read More: <http://www.promedmail.org/post/6220633>

**E. COLI EHEC (FRANCE)**, 21 Dec 2018, Two children, both younger than 3 years old, are ill in France after eating raw milk cheese contaminated with *Escherichia coli* O26, according to authorities. The children have developed hemolytic uremic syndrome (HUS), a type of kidney failure that can be fatal, particularly in young children. The French Ministry of Agriculture and Food said the infections were "severe" but did not mention the children's current state of health. Read More: <http://www.promedmail.org/post/6219141>

**HEPATITIS A (AUSTRALIA)**, 21 Dec 2018, A preventable infection that turns sufferers yellow is making an "unusual" resurgence in Victoria, Australia, with health authorities reporting the state's worst outbreak of hepatitis A since the introduction of modern sewerage. Local cases of the highly contagious liver infection have typically been rare. Most of the 30 to 80 infections reported across the state each year are related to travelers returning from endemic countries where people are forced to live in less hygienic conditions. But the health department is warning that hepatitis A cases are now spreading between Victorians, with 263 cases so far in 2018 -- the highest number since records began in 1991. In addition, 2 people have died in the outbreak, including a man in his late 60s who had pre-existing conditions. Read More: <http://www.promedmail.org/post/6218743>

**TICK-BORNE ENCEPHALITIS (CZECH REPUBLIC)**, 21 Dec 2018, More than 690 people in the Czech Republic were infected with tickborne encephalitis between January and November this year [2018], which is more or less the same as for the whole of 2017. The figure is also the highest since 2006, according to data published by the National Institute of Public Health on Thursday, 20 Dec 2018. Read More: <http://www.promedmail.org/post/6218226>

**DIPHTHERIA (YEMEN)**, 21 Dec 2018, Yemen is already suffering from a devastating civil war and widespread hunger. Now, circumstances caused by the conflict have also paved the way for diphtheria to thrive. The airborne disease kills one of every 10 patients even with medical treatment, and most victims in Yemen receive too little, too late. And although diphtheria has been eradicated in many parts of the world through vaccination, the public health crisis caused by Yemen's war has let this infection flourish there for the 1st time since 1989. Read More: <http://www.promedmail.org/post/6218076>

**FOODBORNE ILLNESS, UNDIAGNOSED FATALITIES (INDIA)**, 21 Dec 2018, The death toll in the food poisoning case at a temple in Chamarajnagar district has gone up to 15, with traces of substances dangerous to humans found in the prasad (offering) served to the affected, deputy chief minister G Parameshwara said. Read More: <http://www.promedmail.org/post/6217670>

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.health.maryland.gov/> or follow us on Facebook at [www.facebook.com/MarylandOPR](http://www.facebook.com/MarylandOPR).

More data and information on influenza can be found on the MDH website:  
<http://phpa.health.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS):  
<http://flusurvey.health.maryland.gov>

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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## Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A



## Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

